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CLAIMS

What is claimed is:

1. An ex vivo method of measuring the level of immune activation and immunosuppression in an individual having, or suspected of having, a T helper 1 (Th1)-associated condition, said method comprising the steps of:

providing an individual having, or suspected of having, a Th1-associated condition;

10 collecting a blood sample including white blood cells (WBC) from said individual;

adding a pro-inflammatory stimulant to said sample; incubating said sample with said stimulant; and

assaying in said stimulated sample the extent of release of a pro-inflammatory substance from said WBCs, wherein the extent of release of said pro-inflammatory substance in response to said pro-inflammatory stimulant is indicative of the level of immunologic activity and/or immunosuppression in said individual.

- 20 2. The method of claim 1, wherein said Th1-associated condition is selected from the group consisting of Crohn's Disease, psoriasis, rheumatoid arthritis, Systemic Lupus Erythematosus (SLE), multiple sclerosis and solid organ transplant rejection.
- 25 3. The method of claim 1, wherein said pro-inflammatory stimulant is interferon-gamma, tumor necrosis factor-alpha, an interleukin or a combination thereof.
- 4. The method of claim 1, wherein said pro-inflammatory 30 substance is a chemotactic cytokine.
 - 5. The method of claim 4, wherein said chemotactic cytokine is selected from the group consisting of CXCL9(MIG), CXCL10(IP-10,IP10) and CXCL11 (ITAC,I-TAC).

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6. The method of claim 1, wherein said pro-inflammatory stimulant is a bacterial-associated lipid or polysaccharide.

- 5 7. method of claim 6, wherein said pro-inflammatory stimulant is selected from the group consisting lipopolysaccharide, lipotechoic acid, peptidoglycan and subunits or components thereof.
- 10 8. The method of claim 1, wherein the extent of release of said pro-inflammatory substance is assayed by a method selected from the group consisting of antibody derived serologic measurement of said pro-inflammatory substance; PCR methodology measurement of messenger RNA levels for said pro-inflammatory substance; protein chip assay quantification of said pro-inflammatory substance; measurement of intracellular production of said pro-inflammatory substance by cells using flow cytometric analysis; binding and release measurement of said pro-inflammatory substance; and measurement of a metabolic product of said pro-inflammatory substance; substance.
 - 9. The method of claim 1, wherein the extent of release of said pro-inflammatory substance is assayed by antibody derived serologic measurement.
 - 10. A kit for *ex vivo* measurement of the level of immunosuppression in an individual having, or suspected of having, a T helper 1 (Th1)-associated condition, said kit comprising:

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a pro-inflammatory stimulant associated with said T helper 1 (Th1)-associated condition; and

instructions for carrying out the method of claim 1 for an individual having, or suspected of having, said condition.

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11. The kit of claim 10, wherein said pro-inflammatory stimulant is interferon-gamma, tumor necrosis factor-alpha, an interleukin or a combination thereof.

5 12. The kit of claim 10, wherein said pro-inflammatory stimulant is a bacterial-associated lipid or polysaccharide.

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- 13. The method of claim 12, wherein said pro-inflammatory stimulant is selected from the group consisting of lipopolysaccharide, lipotechoic acid, peptidoglycan and subunits or components thereof.
- 14. The kit of claim 10, wherein said Th1-associated condition is selected from the group consisting of Crohn's Disease, psoriasis, rheumatoid arthritis, Systemic Lupus Erythematosus (SLE), multiple sclerosis and solid organ transplant rejection.